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ABSTRACT

The Japanese syllabary of today would probably not exist in its present arrangement had it not been for Sanskrit studies in Japan. Scholars of ancient Japan extracted from the Devanagari those sounds which corresponded to sounds in Japanese and arranged the Japanese syllabary in the devanagari order. First appearing in a document dated 1204, this arrangement has been fixed since the 17th century. This arrangement was most convenient for the study of Sanskrit and was later applied by scholars of the history of the Japanese language. It was a convenient means to order information and perhaps, even, its early use has a parallel in the earliest English dictionaries which were arranged according to our present alphabet, but whose major purpose was the study of a foreign language. For the English, it was Latin; for the Japanese, it was Sanskrit. (Author/AMM)

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The Influence of Sanskrit on the Japanese Sound System

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According to one method of analysis the modern Japanese sound system consists of 22 phonemes: five vowel phonemes, 16 consonant phonemes and one pitch phoneme. (Yamagiwa, 1965, 195). This sound system may be written with about 50 characters of either of two modern syllabaries, or kana, the hiragana (cursive) or katakana (more angular script). Both syllabaries are completely efficient and scientific orthographies which provide a workable phonemic notation for the language is all of its features (Miller, 1967, 130).

The current arrangement of this sound system is shown in Chart I. The five vowels listed vertically in the left column plus their combinations with the consonant phonemes shown horizontally make a 5 by 10 equals 50 sound chart. All Japanese words end in a vowel but some word imports from Chinese end in a final nasal syllabic n:ɴ thus the later addition of this unit of the syllabary. Today's sound system is easily traceable to the Nara Period (714-794) from which date the earliest Japanese documents.

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The first writing system known to the Japanese was the ideographic script of Chinese, perhaps the writing system least appropriate to Japanese. Japanese is polysyllabic, highly inflected, agglutinative and uses postpositions - no aspect of which is common to Chinese. Nevertheless the Chinese ideographs were adapted by the Japanese for both semantic and phonetic purposes. The number of ideographs used phonetically in the eighth century totalled

more than 700 and the process of selection and simplification of the writing of these ideographs consumed several generations before the current kana emerged.

The Chinese faced a similar problem some centuries earlier because the introduction of Buddhism into China. There was a need to represent the sounds of Sanskrit words for new religious and philosophical concepts and especially, perhaps, for the sounds of "talismanic words such as anye, manye, mane, mamane which cannot be translated any more than, say, abracadabra." Stanislaus Julien estimated that more than 1200 Chinese characters were used in this fashion. (Sansom, 1928, 11-12). Of course the Chinese did not develop a phonetic system for they already had a highly developed writing system of their own.

Buddhism also had a major impact on Japan and the esoteric True Word (Shingon) Sect was the most important religion of the Heian Period (794-1192). The leading intellectual figure of this period was the priest Kuukai (773-835). Noting the difficulty of studying the Buddhist texts in translation and the importance of understanding both meaning and pronounciation of the Sanskrit original, Kuukai wrote, "Unless one reads the Sanskrit original it is impossible to distinguish the qualities of the vowels. That is why we must go back to the source." (deBary, 1958, quoting Moriyama, Kooboo Daishi-den, 246).

This priest's proficiency in Sanskrit is a matter of conjecture, yet traditionally he is credited with inventing, or developing, or choosing the specific characters used in the kana because

his Sanskrit studies must have convinced him of the advantages of a simple script. (Sansom, 1931, 235). Others hold that the syllabary was the work of several generations (Kanazawa, 1907, 5) and that the syllabary was not an invention at all. (Chamberlain, 1905, 516). Yet another holds that "regardless of Kuukai's part, it is certain that the syllabary was evolved in imitation of Sanskrit use." (deBary, 1958, 139).

It is conceivable that the Sanskrit writing system may have affected the Japanese kana in three aspects: form of writing itself, the theory of the script, and in the arrangement of the sound system. Visual inspection is enough to conclude that the Sanskrit and Japanese syllabaries are unrelated in form.

The indic writing system which the Japanese knew was called shittan (悉曇) by them. This term comes from the Sanskrit siddham ("may it be perfected"), and denotes the script used to write Buddhist Hybrid Sanskrit. It is translated by the Japanese as devanāgarī. Although often referred to as an alphabet, the devanāgarī is both syllabic and consonantal. The simple sound is not regarded as the written unit; rather, the consonant (s) preceding the vowel is regarded as the substantial part of the syllable. The vowels are either implied, or, if written, are written by a subordinate sign attached to the consonant. (Whitney, 1879, 1-4). In this essential aspect the kana and devanāgarī are differentiated.

In the third aspect of comparison, sound arrangement, a congruence is discovered. The traditional order of the devanāgarī is

shown in Chart II. By selecting the Japanese vowel sounds, in order, from the 14-vowel arrangement of the devanāgarī, it is seen that the Japanese order of a, i, u, e, o follows the Sanskrit arrangement.

Similarly the origin of the order of the Japanese consonants is also found in the devanāgarī. Extracting from the Sanskrit arrangement those consonants used in Japanese we find the following order with the Sanskrit equivalents: Japanese k and Sanskrit k, s and c, t and t, n and n, h and p, m and m, y and y, r and r and w and v. The only apparent major problem lies in the equivalency of Japanese s and Sanskrit c which according to Miller (1967, 128-129)[1] is completely regular in view of certain properties of Old Japanese and the variety of Buddhist Hybrid Sanskrit known to the Japanese.

Having seen that the modern Japanese sound system is arranged in a pattern based on the Sanskrit sound system, it remains to show when the present arrangement of the kana first appeared.

The earliest example of any 50-sound chart -- and one which differs from the current arrangement -- is found in the phonetic glosses to a Chinese translation of the Kujaku-kyoo (孔雀經音義) in the Godaiji Buddhist sanctuary in Kyoto. This chart dates from the period 1004-1028 (Miller, 1967, 129) although it is possible that it may go as far back as 901-923 (Yamada, 1938, 79). This particular 50-sound chart, appearing as it does, some two centuries after the time of the Sanskrit scholar Kuukai, bears no evidence of having been influenced by the Sanskrit arrangement. For instance, the vowel order is i, o, a, e, u and the consonants are not arranged as they are today. Throughout the Heian Period, or until about 1200, there is no consonant arrangement based on the Sanskrit and

at least three dissimilar vowel arrangements are used. (Yamada, 1938, 218-219).

The first man to use the current vowel arrangement was Myookaku, a Sanskrit scholar of the late 12th century who was also a priest of Kuukai's sect, the True Word Sect. It seems strange that for the Japanese consonants Myookaku used at least three different arrangements despite the fact that he is recognized as the great man in the revival of Sanskrit studies in Japan. (Yamada, 1938, 221).

The earliest example of an arrangement of the Japanese sound system corresponding exactly to that of today appears in the phonetic glosses on the reverse of the Guchuu-reki (具注暦), a solar calendar dated 1204. Several other arrangements appear subsequently, but it is safe to say that this arrangement became more or less standard by about the middle of the 14th century and that after the 17th century no variant arrangements are found (Yamada, 1938, 225-226).

Perhaps the most important influence in fixing the sound arrangement was a five volume work completed in 1695 by the priest Keichuu (1640-1701). Named the Waji Shooran-shoo (和字正濫鈔) it was the first historical treatment of the Japanese syllabry. This in turn was probably based on the Shittan Sanmitsu-shoo (悉曇三密鈔) written in 1681 by another priest named Kakugen (1639-1702) also of the True Word Sect. This three volume work was a systematic study of the grammar and the writing system of Buddhist Hybrid Sanskrit, and included portions of the interchange of vowels and rhymes. In this work the pronounciation of the Sanskrit is indicated by the use of two elements of the kana to explain each syllable

of the devanāgarī. The use of the Japanese kana in the Sanskrit order in this instance probably made certain that the kana sound arrangement would stay fixed in the Sanskrit pattern. (Yamada, 1938, 166-167;227).

This system of sound notation was used extensively by later scholars of the Japanese language. The appearance of this explanation of Sanskrit in the Sanmitsu-shoo was perhaps responsible for the mistaken impression that the kana was evolved in imitation of the Sanskrit use. Yamada believes this may be due to the misunderstanding of the role of the chart in the minds of eminent early scholars of the Japanese language such as Arai Hakuseki (1657-1725) and Motowori Norinaga (1730-1801) . . . neither of whom were also scholars of Sanskrit.

In short, the Japanese syllabary of today would probably not exist in its present arrangement had it not been for Sanskrit studies in Japan. Scholars of ancient Japan extracted from the devanāgarī those sounds which corresponded to sounds in Japanese and arranged the Japanese syllabary in the devanāgarī order. First appearing in a document dated 1204, this arrangement has been fixed since the 17th century. This arrangement was most convenient for the study of Sanskrit and was later applied by scholars of the history of the Japanese language. It was a convenient means to order information and perhaps, even, its early use has a parallel in the earliest English dictionaries which were arranged according to our present alphabet, but whose major purpose was the study of a foreign language - for the English it was Latin; for the Japanese, it was Sanskrit.

Chart I

The Fifty sound Chart (gojuuonzu)

a	ka	sa	ta	na	ha	ma	ya	ra	wa
i	ki	shi	chi	ni	hi	mi	yi	ri	wi
u	ku	su	tsu	nu	fu	mu	yu	ru	wu
e	ke	se	te	ne	he	me	ye	re	we
o	ko	so	to	no	ho	mo	yo	ro	wo

Chart II

The Devanagari Sound System*

	Short	Long	
	a	ā	
palatal	i	ī	
labial	u	ū	
lingual	r	r̄	Simple vowels
dental	l	l̄	
palatal	e	āi	dipthongs
labial	o	āu	

	surd	surd.asp.	sonant	son.asp	nasal	
gutteral	k	kh	g	gh	n̄	
palatal	c	ch	j	jh	ñ	
lingual	ṭ	ṭh	ḍ	ḍh	ṇ	Mutes
dental	t	th	d	dh	n	
labial	p	ph	b	bh	m	

palatal	y	} Semivowels	palatal	ś	} Sibilants
lingula	r		lingual	ṣ	
dental	l		dental	s	
labial	v				

aspiration h

*See W. D. Whitney, A Sanskrit Grammar, Leipzig, 1879, pp 2-3 and W. S. Allen, Phonetics in Ancient India, London, 1953, p. 20.

FOOTNOTE

1. Miller writes, "This is easily understood since modern Japanese s goes back to the Old Japanese affricate phoneme /t^s/ which had an allophone [t^s] before Old Japanese /a,u,o,ö/ and an allophone [s] before /i,e/. Sanskrit c and other members of its series were generally pronounced not as the classical [t^s] affricates in the particular variety of Buddhist Hybrid Sanskrit which was common in the Mahāyānā countries to the north of India. They appear as such in the earliest Chinese transcriptions (though in China many of these were later Sanskritized to conform to the classical pronounciation), and the Sanskrit c-series regularly appears in Tibetan as ts, tsh-, etc. Hence the location of Old Japanese /t^s/, modern Japanese s following the first velar entry was completely regular."

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